

(19) World Intellectual Property
Organization
International Bureau



24 FEB 2005



(43) International Publication Date
11 March 2004 (11.03.2004)

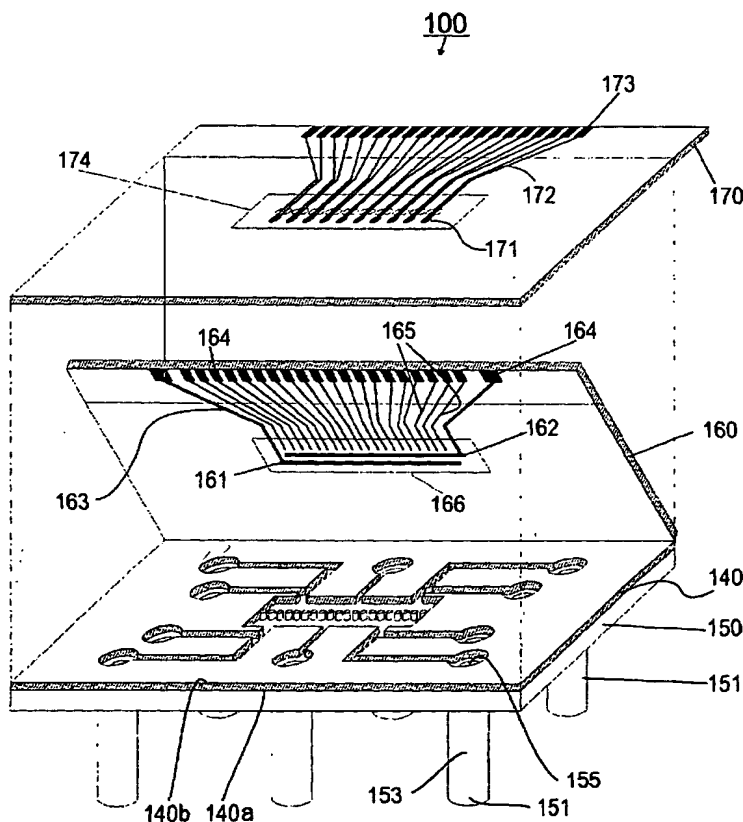
PCT

(10) International Publication Number
WO 2004/020590 A3

- (51) International Patent Classification⁷: C12M 1/34, 1/12
- (21) International Application Number:
PCT/US2003/026798
- (22) International Filing Date: 27 August 2003 (27.08.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/406,278 27 August 2002 (27.08.2002) US
- (63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 60/406,278 (CIP)
Filed on 27 August 2002 (27.08.2002)
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[Continued on next page]

(54) Title: BIOREACTORS WITH MULTIPLE CHAMBERS



(57) Abstract: A bioreactor for cultivating living cells in a liquid medium. In one embodiment of the present invention, the bioreactor has a first substrate (140) having a first surface (140a) and an opposite second surface (140b), defining a chamber (101) therebetween for receiving cells and the liquid medium. The bioreactor further has a barrier (104) dividing the chamber (101) into a first subchamber (102) and a second subchamber (103), wherein the barrier (104) has a porosity to allow the first subchamber (102) and the second subchamber (103) in fluid communication and allow at least one predetermined type of cells to permeate between the first subchamber (102) and the second subchamber (103) in fluid communication and allow at least one predetermined type of cells to permeate between the first subchamber (102) and the second subchamber (103).

WO 2004/020590 A3



(81) **Designated States (national):** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) **Date of publication of the international search report:**
17 June 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/26798

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12M 1/34, 1/12

US CL : 435/288.5, 288.6, 288.7, 297.2, 297.5

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/288.5, 288.6, 288.7, 297.2, 297.5

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,636,358 A (WILDING et al.) 03 June 1997, see description of figures 1,3,7; col. 8, lines 27-67.	1-4,6-17
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A		5,18-65
X	US 2002/0058329 A1 (SINGH et al.) 16 May 2002, see description of figures 1-3	1-4,6-9,14-16
X,P	US 6,440,645 B1 (YON-HIN et al.) 27 August 2002, see description of figures 2-8.	1-4,6-9,14-16



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"&"

document member of the same patent family

Date of the actual completion of the international search

02 February 2004 (02.02.2004)

Date of mailing of the international search report

17 FEB 2004

Name and mailing address of the ISA/US

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